



DATA MANAGEMENT AND BUSINESS INTELLIGENCE

Foundations of Data and Models

Regression Analytics

Course code: DMBI-012

SPARK TRAINING

Professional training courses for leaders, specialists, and organizations seeking practical capability development.

info@sparktraining.eu

+31 85 115 0004 | sparktraining.eu

— Workshop Overview

Organizations today rely heavily on data to guide decisions, improve performance, and predict future outcomes. Understanding how to structure data and build reliable statistical models is a critical skill across all industries. This course provides a strong foundation in data handling and regression modeling, enabling participants to interpret relationships between variables, build predictive models, and make evidence-based decisions using structured analytical methods.

Why Attend

This course is designed with a practical, hands-on approach:

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- Step-by-step explanation of key statistical concepts
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- Practical exercises using structured datasets
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Who Should Attend

Data Analysts and Junior Data Scientists
Business Analysts
Reporting and MIS Professionals
Engineers and Technical Staff working with data
Finance and Operations Professionals
Anyone responsible for data interpretation and reporting

— Learning Objectives

- Understand the fundamentals of data types and structures
- Apply basic statistical techniques for data analysis
- Build and interpret simple and multiple regression models
- Identify relationships between variables in datasets
- Evaluate model performance and accuracy
- Use regression outputs to support decision-making

— Course Outline

DAY
1

Introduction to Data and Statistical Foundations

- Understanding data types (categorical, numerical, structured)
- Data collection and preparation basics
- Descriptive statistics (mean, median, variance, etc.)
- Data visualization fundamentals
- Correlation and relationship between variables
- Introduction to analytical thinking

DAY
2

Introduction to Regression Analysis

- Concept of regression modeling
- Simple linear regression
- Relationship between dependent and independent variables
- Interpreting slope and intercept
- Error terms and model fit
- Practical exercises using sample data

DAY
3

Multiple Regression Analysis

- Expanding to multiple variables
- Building multiple regression models
- Understanding coefficients and variable impact
- Multicollinearity concept (intro level)
- Model interpretation techniques
- Hands-on regression modeling practice

DAY
4

Model Evaluation and Performance

- Measuring model accuracy (R^2 and error metrics)
- Residual analysis and interpretation
- Detecting model weaknesses
- Overfitting and underfitting concepts
- Improving model reliability
- Basic validation techniques

DAY
5

Practical Applications of Regression Modeling

- Applying regression to real-world datasets
- Forecasting and prediction basics
- Using regression outputs for decision-making
- Common pitfalls in data analysis
- Best practices in reporting results
- Final practical exercise and review

— Upcoming Classroom Dates

DATE	LOCATION	FEE
5 - 9 October 2026	Barcelona - Spain	€1,925
5 - 9 October 2026	Barcelona - Spain	€1,925
12 - 16 October 2026	Kuala Lumpur - Malaysia	€1,400
12 - 16 October 2026	Kuala Lumpur - Malaysia	€1,400
9 - 13 November 2026	Barcelona - Spain	€1,925
9 - 13 November 2026	Barcelona - Spain	€1,925
16 - 20 November 2026	Paris - France	€2,250
16 - 20 November 2026	Paris - France	€2,250

— Certificate and Registration

Participants who attend and complete the full programme receive a SPARK Training Certificate of Completion. For registration, in-house delivery, or availability questions, contact info@sparktraining.eu or +31 85 115 0004.